

**AMENDMENT IN THE NATURE OF A SUBSTITUTE**  
**TO H.R. 1713**  
**OFFERED BY M . \_\_\_\_\_**

Strike all after the enacting clause and insert the following:

1    **SECTION 1. SHORT TITLE.**

2        This Act may be cited as the “DOE and USDA Inter-  
3 agency Research Act”.

4 SEC. 2. DEPARTMENT OF ENERGY AND DEPARTMENT OF  
5 AGRICULTURE JOINT RESEARCH AND DEVEL-  
6 OPMENT ACTIVITIES.

(a) IN GENERAL.—The Secretary of Energy and the Secretary of Agriculture (in this section referred to as the “Secretaries”) shall carry out cross-cutting and collaborative research and development activities focused on the joint advancement of Department of Energy and Department of Agriculture mission requirements and priorities.

(b) MEMORANDUM OF UNDERSTANDING.—The Secretaries shall carry out and coordinate the activities under subsection (a) through the establishment of a memorandum of understanding, or other appropriate interagency agreement. Such memorandum or agreement shall require the use of a competitive, merit-reviewed process,

1 which considers applications from Federal agencies, Na-  
2 tional Laboratories, institutions of higher education, non-  
3 profit institutions, and other appropriate entities.

4 (c) COORDINATION.—In carrying out the activities  
5 under subsection (a), the Secretaries may—

6 (1) conduct collaborative research over a variety  
7 of focus areas, such as—

8 (A) modeling and simulation, machine  
9 learning, artificial intelligence, data assimila-  
10 tion, large scale data analytics, and predictive  
11 analysis in order to optimize algorithms for  
12 purposes related to agriculture and energy,  
13 such as life cycle analysis of agricultural or en-  
14 ergy systems;

15 (B) fundamental agricultural, biological,  
16 computational, and environmental science and  
17 engineering, including advanced crop science,  
18 crop protection, breeding, and biological pest  
19 control, in collaboration with the program au-  
20 thorized under section 306 of the Department  
21 of Energy Research and Innovation Act (42  
22 U.S.C. 18644);

23 (C) integrated natural resources and the  
24 energy-water nexus, including in collaboration  
25 with the program authorized under section

1           1010 of the Energy Act of 2020 (enacted as di-  
2           vision Z of the Consolidated Appropriations  
3           Act, 2021 (42 U.S.C. 16183));

4           (D) advanced biomass, biobased products,  
5           and biofuels, including in collaboration with the  
6           activities authorized under section 9008(b) of  
7           the Farm Security and Rural Investment Act of  
8           2002 (7 U.S.C. 8108(b));

9           (E) diverse feedstocks for economically and  
10          environmentally sustainable fuels, including  
11          aviation and naval fuels;

12          (F) colocation of agricultural resources and  
13          activities and ecosystem services with diverse  
14          energy technologies and resources, such as geo-  
15          thermal energy, nuclear energy, solar energy,  
16          wind energy, natural gas, hydropower, and en-  
17          ergy storage;

18          (G) colocation of agricultural resources  
19          and activities with carbon storage and utiliza-  
20          tion technologies;

21          (H) invasive species management to fur-  
22          ther the work done by the Federal Interagency  
23          Committee for the Management of Noxious and  
24          Exotic Weeds;

1 (I) long-term and high-risk technological  
2 barriers in the development of transformative  
3 science and technology solutions in the agri-  
4 culture and energy sectors, including in collabo-  
5 ration with the program authorized under sec-  
6 tion 5012 of the America COMPETES Act (42  
7 U.S.C. 16538);

8 (J) grid modernization and grid security;

9 (K) rural technology development, includ-  
10 ing manufacturing, precision agriculture tech-  
11 nologies, and mechanization and automation  
12 technologies; and

13 (L) wildfire risks and prevention, including  
14 the power sector's role in fire prevention and  
15 mitigation and wildfire impacts on energy infra-  
16 structure;

17 (2) develop methods to accommodate large vol-  
18 untary standardized and integrated data sets on ag-  
19 ricultural, environmental, supply chain, and eco-  
20 nomic information with variable accuracy and scale;

21 (3) promote collaboration, open community-  
22 based development, and data and information shar-  
23 ing between Federal agencies, National Labora-  
24 tories, institutions of higher education, nonprofit in-  
25 stitutions, industry partners, and other appropriate

1 entities by providing reliable access to secure data  
2 and information that are in compliance with Federal  
3 rules and regulations;

4 (4) support research infrastructure and work-  
5 force development as the Secretaries determine nec-  
6 essary; and

7 (5) conduct collaborative research, development,  
8 and demonstration of methods and technologies to—

9 (A) improve the efficiency of agriculture  
10 operations and processing of agricultural prod-  
11 ucts; and

12 (B) reduce greenhouse gas emissions asso-  
13 ciated with such operations and such proc-  
14 essing.

15 (d) AGREEMENTS.—In carrying out the activities  
16 under subsection (a), the Secretaries are authorized to—

17 (1) carry out reimbursable agreements between  
18 the Department of Energy, the Department of Agri-  
19 culture, and other entities in order to maximize the  
20 effectiveness of research and development; and

21 (2) collaborate with other Federal agencies as  
22 appropriate.

23 (e) REPORT.—Not later than two years after the date  
24 of the enactment of this Act, the Secretaries shall submit  
25 to the Committee on Science, Space, and Technology and

1 the Committee on Agriculture of the House of Representa-  
2 tives, and the Committee on Energy and Natural Re-  
3 sources and the Committee on Agriculture, Nutrition, and  
4 Forestry of the Senate, a report detailing the following:

5 (1) Interagency coordination between each Fed-  
6 eral agency involved in the research and development  
7 activities carried out under this section.

8 (2) Potential opportunities to expand the tech-  
9 nical capabilities of the Department of Energy and  
10 the Department of Agriculture.

11 (3) Collaborative research achievements.

12 (4) Areas of future mutually beneficial suc-  
13 cesses.

14 (5) Continuation of coordination activities be-  
15 tween the Department of Energy and the Depart-  
16 ment of Agriculture.

17 (f) RESEARCH SECURITY.—The activities authorized  
18 under this section shall be applied in a manner consistent  
19 with subtitle D of title VI of the Research and Develop-  
20 ment, Competition, and Innovation Act (enacted as divi-  
21 sion B of the CHIPS Act of 2022 (Public Law 117–167;  
22 42 U.S.C. 19231 et seq.)).

